

MUST News

Department of Environmental Quality

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S. 195 — Proposed Federal Tank Inspection Program

Are you tracking the proposed federal legislation requiring inspections of underground storage tanks?

You have probably received information from your trade sources, but a brief summary is presented here to ensure you are informed. The bill, known as the Underground Storage Compliance Act of 2003, is S 195 and it creates an inspection program for underground storage tanks under the Solid Waste Disposal Act.

As this issue of the *MUST News* was prepared, the bill had passed the Senate and was referred to a committee of the U.S. House of Representatives.

The core requirement affecting owner and operators is contained in Section 3 of the bill. It requires inspections of regulated tanks and provides for the establishment of state implementation programs. Under section 4, these inspection requirements are supplemented by a requirement for operator training.

Montana currently has an inspection requirement. Therefore a comparable requirement at the federal level is consistent with Montana's goals and objectives. Passage of the federal legislation may increase the inspection frequency from once every 3 years to once every 2 years. The good news is that since we have an established inspection program, a shift in frequency would have minimal effect. We would not have to recreate the existing program. Thus, program development, with all its headaches, has essentially been completed.

The requirement for an operator-training program supplements Montana's current outreach efforts to provide timely compliance assistance for the purposes of release prevention. Additional funding available under this legislation would enable the department to conduct additional education outreach.

If you are interested in finding out more about S. 195 you can review it on the U.S. Senate Web site: www.senate.gov



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UST Installation/Closure Permit Process Redesign Update

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Earlier this year the department embarked on an effort to redesign the underground storage tank permitting process. Changes proposed to the permitting process would affect permit submission requirements, the department review process, review times, and post-installation paperwork requirements.

Many of our installers/removers have provided input into the design and content of a proposed installation permitting

manual that will accompany the program changes. While the department hoped to roll-out the new process and manual by May 1st, suggestions from the Legislative Audit Committee led to further revisions and it is our current plan to implement the changes in late Fall.

Look to the MUST News for further announcements. If you have any questions on the re-engineering of the permitting process, contact Bill Rule at 444-1420.



Recent DEQ Enforcement Actions Touch Tank Operations in Dillon

The Montana Department of Environmental Quality received \$2,000 in administrative penalties in settlement of its enforcement action against Berry Trucking, Inc. of Tetonia, Idaho, for violations of Montana's Underground Storage Tank Act at the Big Sky Truck Stop in Dillon.



By law, a person may not place or dispense a petroleum product from an underground storage tank system unless the owner or operator has a valid operating permit and operating tag for the system.

Berry Trucking was cited for placing a petroleum product in four UST systems at the Big Sky Truck Stop. At the time of Berry's fuel delivery, the truck stop did not have valid operating permits or operating tags for the UST systems.

In a separate action, the DEQ has received \$2,000 in administrative penalties in settlement of its enforcement action against Beaverhead County for violations of UST laws at the Dillon Municipal Airport.

The county was cited for failing to obtain a permit to close or modify an underground storage tank system and failing to obtain the services of a licensed installer when modifying an UST system.

The airport UST systems did not have current operating permits or operating tags or a DEQ-approved compliance plan.

The county has obtained the services of a licensed installer to certify that the modifications done by Beaverhead County without a permit were correct and in compliance with the law. On March 5, 2003, the DEQ issued the operating permit and operating tags for the Airport UST systems.

Bioremediation: Bugs can be a big help in cleaning the environment

By Scott Gestring, Montana Department of Environmental Quality

Part 1 of a Series

Microbes are seemingly ubiquitous in the environment, capable of surviving in the harshest climates that the earth has to offer, from steaming hot pools in Yellowstone Park to the inside of rocks in Antarctica.

If microbes can exist in these extreme conditions, it should come as no surprise that they can exist in the presence of petroleum hydrocarbons. It is well known that microbes

can degrade hazardous substances such as gasoline and diesel into less toxic or non-toxic substances. This process is called bioremediation. In-situ bioremediation utilizes biological treatments to clean up hazardous chemicals in the soil and surface or subsurface waters. The first in-situ bioremediation system was installed over 20 years ago and since then the technology has matured into a well-established tool for cleaning up easily degraded petroleum products.



Bacteria

Research has concluded that, under ideal conditions, bacteria can reproduce rapidly, producing a new generation every 20 to 30 minutes. The population increases logarithmically until the food source is depleted, or some other change in the environment such as pH, temperature or oxygen content in the environment will cause the population to decrease.



The Environmental Protection Agency has confirmed that bacterial growth rate is a function of temperature. Microbial activity is significant between 10 and 45 degrees Celsius (between 50 and 113 degrees Fahrenheit) with microbial activity typically doubling for every 10 degrees C rise in temperature within that range. To support bacterial growth, the pH should be within the 6 to 8 range with an optimal value of about 7, neutral. Bacteria require inorganic nutrients such as nitrogen and phosphate to support cell growth and sustain biodegradation processes, the EPA research says. Nutrients may be available in

sufficient quantities in the aquifer, but more frequently, nutrients need to be added to maintain adequate bacterial populations.

Aerobic vs. Anaerobic Bioremediation

Another piece of research confirms that for applications directed at petroleum products, bacteria that metabolize organic contaminants aerobically are most important in the degradation process. The rate of biodegradation will depend, in part, on the supply of oxygen to the contaminated area, because aerobic metabolism is much faster than anaerobic metabolism. When there is an insufficient amount of dissolved oxygen available, organisms that can use other electron acceptors such as nitrate may degrade the contaminants but at slower rates. Aerobic bioremediation usually is preferred because it degrades pollutants 10 to 100 times faster than anaerobic bioremediation.

(Next issue: Bioremediation in Montana)

Petro Fund Update

At the Petroleum Tank Release Compensation Board meeting April 23, 2003, the board was advised that the Petroleum Fund Services Section (PFSS) had a vacant administrative officer position due to Christi Knowles' departure. The department asked the board if it wanted to be involved in the hiring process for the position in light of changes in the law under House Bill 368 (HB 368). The board decided that it did not want the position filled until it had time to discuss the impact of HB 368. The bill was signed by the governor on April 4, 2003, and becomes law on October 1, 2003. HB 368 allows the board to hire its own staff, changes fund-eligibility criteria, reimbursement of expenses caused by a release, procedures for reimbursement, review procedures for corrective action plans and claims, administrative costs and powers and duties of the board. The statutory changes will require new – and amendment of – administrative rules of the board.



The department advised the board that not filling the vacant position would likely result in delays in processing claims and in reviewing corrective action plans and eligibility applications. The PFSS had authorization for four administrative officer positions in 2001 and 2002. In

2003, as a cost-saving measure, one position was left vacant, and, in 2004, with the recent board decision, only two positions remain until the board finalizes its employment planning. The board acknowledged that the entire section's efficiency and productivity would be reduced.

Also at the April 23, 2003, meeting, the board tabled several issues: an equipment policy, a proposed claim-preparation policy, a proposed rule amendment pertaining to corrective action budgets, a labor cost policy and a utility repair/locate policy.

The Underground Storage Tank Program and the Petroleum Fund have been undergoing a legislative performance audit since mid-December 2002. The interim audit communications to the department and the Board have several far-reaching recommendations. It is anticipated that the final report will be presented to the Legislative Audit Committee in September 2003. The recent statutory amendments, audit recommendations and subsequent board decisions may result in a significant restructuring of the Fund and UST programs and alter the responsibilities of the board, its staff and department personnel.

Here's one you probably haven't heard...

A customer mistakenly filled his Honda with diesel fuel. We knew he was a patient person because it took some time to pump diesel through a leaded nozzle into an unleaded fuel tank. After topping off the tank, the customer discovered his blunder. But this guy was smarter than the average bear. He pushed his car to the vacuum station on the other side of the property and began vacuuming the diesel out of the tank.



We aren't sure how he did that, but ultimately the dust pan in the vacuum filled up and fuel started running onto the drive and down the street. The operator of the store asked the customer to stop at once and called 911. The driver and his companions pushed the car across a six-lane highway and hid behind a Waffle House, where the police eventually found them. We used absorbent materials to contain the spill.

Reported by Mike Hoffman, Mike Hoffman's Equipment Service, Inc., Mobile, AL in the Petroleum Equipment Institute newsletter, *The Tulsa Letter*, April 30, 2003.

